

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re patent application of

Huilong Zhu et al.

Conf. No.: 2377

Serial No.: 10/708,378

Group Art Unit: No.: 2818

Filed: February 27, 2004

Examiner: N. Ngo

For: HYBRID SOI/BULK SEMICONDUCTOR TRANSISTORS

Commissioner for Patents  
PO Box 1450  
Alexandria, Virginia 22313-1450

APPELLANT'S REPLY BRIEF UNDER 37 C.F.R. §41.41

This reply brief is filed in reply to the Examiner's Answer mailed September 21, 2007.

In the Examiner's Answer, the Examiner does not indicate any new grounds of rejection or new points of argument. However, the Examiner couches the explanation of grounds of rejection and response to arguments made in Appellant's Brief somewhat differently than in official actions in this application prior to Appellant's Brief. To the extent that any of these differences may, in fact, be new or altered grounds of rejection or new points of argument, Appellants respectfully respond as follows:

1. The Examiner's discussion of the rejection of claims 1 - 5, 11 and 21 - 25 under 35 U.S.C. §102 is silent in regard to independent claims 1 and 11 as well as dependent claims 5, 10 and 21 - 25.

2. On page 3, of the Examiner's Answer, and in regard to claim 2 which is rejected for anticipation by Krivokapic under 35 U.S.C. §102, the Examiner admits that no weight is given to the method of making the structure, specifically, the recitation of the alignment of the discontinuity with the gate electrode recited in independent claim 1 (which is not discussed in the discussion of the rejection in the Examiner's Answer) being "self-aligned". It is respectfully submitted that according no patentable weight to an explicit recitation of a claim is clearly and *prima facie* improper in a rejection for anticipation under 35 U.S.C. §102. It is further respectfully submitted that such a position taken by the Examiner is even more clearly improper in a dependent claim where a structural and positional relationship between structural elements is explicitly set out in structural terms and the dependent claim must be construed as further limiting a clearly structural recitation in claim 1 as the Examiner clearly appears to be doing since the Examiner has raised no other issue in regard to the propriety of claim 2. Therefore, by continuing to assert a product-by-process analysis in regard to claim 2, *it appears that the Examiner is, by inference, according no patentable weight to the clearly structural recitation of alignment in claim 1, which is a principal issue in all the grounds of rejection in this Appeal.* Moreover, the Examiner's product-by-process analysis is only proper when no structural difference would result from the claimed process (if, in fact, a "self-aligned" feature is properly considered as *only* a process recitation) and has been rebutted by indicating that self-alignment is, in fact, a structural feature of the claimed device since self-alignment achieves substantially exact relative positioning by eliminating sources of overlay error. Accordingly, it is respectfully submitted that the Examiner's assertion in regard to claim 2 is incorrect and improper.

2. Also on page 3 of the Examiner's Answer, the Examiner asserts (emphasis added) that "the insulator film (30) *can* inherently be a stressed film." It is respectfully submitted that such an assertion is necessarily self-contradictory and emphasizes the

impropriety of the rejection of claims 3 and 4. For an assertion of inherency to be proper in a rejection for anticipation, the feature not disclosed by the reference but deemed to be inherent *must necessarily and unavoidably* flow from subject matter which is, in fact, disclosed. The mere possibility of the existence of such a feature, as reflected in the Examiner's language in the Examiner's Answer is clearly insufficient to support the assertion of inherency upon which the Examiner clearly relies. Therefore, it is respectfully submitted that the rejection of claims 3 and 4 is *prima facie* improper.

4. Further, beginning on page 3 of the Examiner's Answer, the Examiner incorrectly asserts (emphasis added) that "Krivokapic clearly shows a discontinuous film (30) having an edge located in a position *defined by* an edge of the gate structure." The response to arguments in Appellants' Brief use the same language which is both erroneous and illusory. As pointed out to the Examiner repeatedly during the prosecution of this application and in Appellants' Brief, the location of the discontinuity is determined by an independent masking (at 22 of Figure 1) and the epitaxial region 32/40 (Figures 3 and 4 and gate are formed *thereafter* with the gate position "determined" by the location of nickel spacers 38 which can only *approximate* alignment with the discontinuity as distinct from the discontinuity being aligned (or self aligned with the gate) or edges of the discontinuity being aligned with or the position thereof "determined by" edges of the gate. Even the Examiner's proffered dictionary definition of "alignment" is descriptive of the latter and the invention but not the former or the device or methodology of Krivokapic.

5. On page 5 of the Examiner's Answer, the Examiner again asserts that the discontinuous film inherently provides stress in the conduction channel and that "Appellants failed to prove otherwise." It is respectfully submitted that the mere (and manifestly improper) assertion of inherency, contrary to long-established precedent, cannot establish a fact not evidenced by other disclosure of the reference relied upon

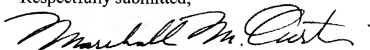
or shift the burden of proof away from the Examiner to *prima facie* demonstrate anticipation or obviousness.

Conclusion

Accordingly, it is respectfully submitted that the Examiner's Answer does not demonstrate the propriety of the asserted grounds of rejection but, rather, serves to further indicate the impropriety thereof and the clear errors therein. Accordingly, reversal of the Examiner in regard to all grounds of rejection of record is respectfully requested.

This Reply Brief is being timely filed electronically November 21, 2007. If, for any reason, this Reply Brief should appear in the records of the United States Patent and Trademark Office to be filed on a later date, it is respectfully submitted that the underlying circumstances will necessarily constitute "sufficient cause" for extension of time under 37 C.F.R. §1.136(b) and a conditional petition of time in accordance therewith is hereby made. Please charge any fees in connection with this Reply Brief, including any fee for such a conditional petition for extension of time to Deposit Account 09.0458 of International Business Machines Corporation (East Fishkill).

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Marshall M. Curtis". The signature is fluid and cursive, with a large initial "M" and a long, sweeping underline.

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